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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,182	08/01/2003	Satoshi Hata	035576/267853	4912

826 7590 03/22/2007

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EXAMINER	
HUSBAND, SARAH E	
ART UNIT	PAPER NUMBER
1746	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/633,182	HATA, SATOSHI	
	Examiner	Art Unit	
	Sarah E. Husband	1746	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 January 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 1/19/2007 have been fully considered but they are not persuasive. Applicant argues that the prior art (Hibara and Miller) do not disclose "a pressure gage for detecting the pressure in said duct" as claimed by Applicant. Applicant specifically argues that Hibara does not disclose this feature nor does Miller. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The combination of the references, Hibara in view of Miller, discloses the claimed invention as described in the previous office action. Applicant also argues that "Miller does not discuss the desirability of providing a pressure gage in *close proximity* to the steam nozzle and moving blade such that the duct pressure is detected as currently claimed" (page 3, 2nd paragraph). However, this limitation is not present at any point in the claims and therefore the arguments are not commensurate with the scope of the claimed invention. Applicant further argues that the system contemplated by Miller merely indicates a "decrease in performance of a turbocharger, which is not necessarily indicative of the turbine blades becoming dirty or fouled." (page 4 arguments) This argument is not persuasive because Miller specifically states, "Pressure transducer 54 is connected to sense the pressure of air being discharged through air discharge 20. It is a drop in this pressure that is used to determine when the fouling of the blades has reached the

point where it is significant enough that water injection should be utilized to effect cleaning of the blades." (col. 3, ll. 53-59) Therefore, Miller unquestionably provides a teaching that the pressure is used to determine the fouling of the blades and as a result injection of water to clean the blades.

The rejections of the dependent claims are also considered not persuasive because of the reasons given above. Therefore, the rejection is maintained.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hibara (JP 60-69214) in view of Miller (US Patent No. 4,548,040).

Hibara discloses a geothermal turbine, which would use steam from the environment. This turbine would have the parts which are common in the art to turbines such as ducts, blades, casing, etc. (shown also by Miller). Hibara specifically describes the use of nozzles in the turbine blades which provide cleaning to the entire surface of the blades (Fig. 1-3, emphasis on 3). Hibara does not disclose the control mechanism of the turbine blade cleaning system. Miller discloses that the cleaning function can be controlled based on the sensed pressure (col. 3, 4).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Hibara with Miller for the benefit of the efficient control of the cleaning operation which allows the turbine to continue running during cleaning and operates only when necessary.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miller (US Patent No. 4,548,040).

Miller discloses a turbine system with blades, casing, duct, water injection nozzle (70) upstream of the stator blade, pressure transducer (gage), and a control unit for opening the pump when the detected pressure has reached a certain value (Fig. 1, col. 3, 4; see entire document as well). Although the prior art uses a pump instead of a valve, one of ordinary skill in the art would readily foresee using a valve or pump as these are both common fluid control mechanisms. The "steam" turbine is considered as the intended use of the extraneous matter removing system, as there are no limitations present in the claims, which define the steam turbine. Therefore, little patentable weight has been given to this limitation.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miller in view of Rice (US Patent No. 4,384,452).

Miller discloses the turbine blade cleaner shown above in the 103(a) rejection. They do not specifically disclose surface reforming. Rice discloses coating the blade, which is a type of surface reforming described by Applicant (col. 9, ll. 35-55; see entire document as well).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Miller with Rice for the benefit of having to do fewer repairs on the equipment.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hibara and Miller, as applied to claims 1-3 above, and further in view of Rice (US Patent No. 4,384,452).

Hibara and Miller disclose the turbine blade cleaner shown above in the 103(a) rejection. They do not specifically disclose surface reforming. Rice discloses coating the blade, which is a type of surface reforming described by Applicant (col. 9, ll. 35-55; see entire document as well).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to modify Hibara and Miller with Rice for the benefit of having to do fewer repairs on the equipment.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action.

In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sarah E. Husband whose telephone number is (571) 272-8387. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached on (571) 272-1414. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SEH

MICHAEL BARR
SUPERVISORY PATENT EXAMINER